

**REMARKS**

The May 16, 2005 Office Action has been reviewed and its contents carefully noted. Favorable reconsideration of this case is respectfully requested. In the Office Action dated May 16, 2005, claims 16-32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 6,524,362 to Eichberger et al. (“Eichberger”) in view of U.S. 6,241,798 to Dimitriov et al. (“Dimitriov”) and Merriam-Webster’s Collegiate Dictionary page 802. Claims 16-32 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 5,835,524 to Berger et al. (“Berger”) in view of U.S. 3,307,935 to Lindholm (“Lindholm”).

In view of the above, Applicants have amended claims 16 and 32 so as to clarify the scope of these claims as method claims. Applicants have amended claims 18, 19, 21, 24-29 and 31 so as to indicate that these claims depend from independent claim 16. Applicants have further amended Claim 26 so as to denote an “electrically conductive” charging tube. Support for the amendment of Claim 26 is found at page 8 of the specification. Finally, Applicants have amended independent Claims 16 and 32, which when considered with the remarks set forth below are deemed to place the application in condition for allowance. Support for the amendment of Claims 16 and 32 to recite “directly into the central region of the melting furnace through at least one charging tube” is found at pages 6 and 9 of the specification and in claim 1 of the application as filed. Support for the amendment of claims 16 and 32 to recite “permanently dipping into” the slag layer is found in claim 1 of the application as filed and at pages 1 and 8 of the specification as filed. Support for the amendment of claims 16 and 32 to recite “where the position of the charging tube and the insertion depth of the lower end of the charging tube into the slag layer is regulated during melting” is found at page 8 of the

specification and in claim 9 of the application as filed. No new matter is being added. Claims 16-32 are presented for continued prosecution. Reconsideration of the application is respectfully requested.

**Claim Rejections—35 U.S.C. §103(a).**

**I. Claims 16-32 over Eichberger in view of Dimitriov and Merriam-Webster's Dictionary**

The Examiner has rejected Claims 16-32 under 35 U.S.C. §103(a) as obvious over Eichberger in view of Dimitriov and Merriam-Webster's College Dictionary page 802, stating that it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the electric arcs obliquely against the metal melt and that arrangement of the electric arcs around a central region is conventional.

Applicants respectfully traverse the Examiner's rejection in view of the amendments to the claims submitted herewith and as improper in view of MPEP §2143. MPEP §2143 states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully point out that a *prima facie* case of obviousness has not been set forth because all limitations of the claims, as amended, are not taught or suggested by the combination of the Eichberger and Dimitriov references. Applicants submit that the arrangement of the electric arcs obliquely around the metal melt and conveyance of the metal containing material directly into a central region of the melting furnace is not taught or suggested by the combination

of the Eichberger and Dimitriov references. In view of the above, the rejection is unsupported by the cited art and should be withdrawn.

II. Claims 16-32 over Berger in view of Lindholm

The Examiner has rejected Claims 16-32 under 35 U.S.C. §103(a) as obvious over Berger in view of Lindholm, stating that it would have been obvious to one of ordinary skill in the art at the time the invention was made to impart material exclusively by gravity and that it would be obvious to direct electrodes obliquely.

Applicants respectfully traverse the Examiner's rejection in view of the amendments to the claims submitted herewith and as improper in view of MPEP §2143. MPEP §2143 states:

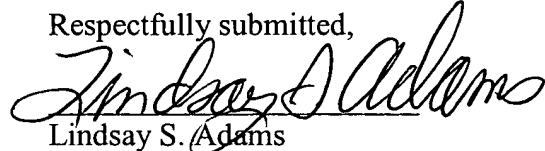
To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully point out that a *prima facie* case of obviousness has not been set forth because all limitations of the claims, as amended, are not taught or suggested by the combination of the Berger and Lindholm references. Applicants submit that the arrangement of the electric arcs obliquely around the metal melt and conveyance of the metal containing material directly into a central region of the melting furnace is not taught or suggested by the combination of the Berger and Lindholm references. Likewise, Applicants submit that the claim limitation of a charging tube dipping permanently into the slag layer is not taught or suggested by the

combination of the Berger and Lindholm references. In view of the above, the rejection is unsupported by the cited art and should be withdrawn.

Applicants respectfully submit that this application is in condition for allowance. Early and favorable action is earnestly solicited. If any additional fee is due, the amount of such fee may be charged to Deposit Account No. 50-1145.

Respectfully submitted,



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